

PROJECT DESCRIPTION

THIS PROJECT INVOLVES MODIFICATION OF THE TRAFFIC SIGNAL AT THE INTERSECTION OF US 40 & MD 7/MD 159 INCLUDING LED TRAFFIC SIGNAL HEADS DUE TO THE WIDENING OF THE MD 7 APPROACH. US 40 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THIS INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE-PERMISSIVE LEFT TURNS FOR THE US 40 APPROACHES AND SPLIT PHASING FOR THE MD 7 AND MD 159 APPROACHES.

CONTROLLER REQUIREMENTS

A FULL-TRAFFIC-ACTUATED EIGHT PHASE TRAFFIC SIGNAL CONTROLLER HOUSED IN A TYPE S BASE MOUNTED CABINET SHALL BE FURNISHED BY SHA AND INSTALLED BY THE CONTRACTOR. VIDEO DETECTION INTERFACE EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY SHA. UPS BATTERY BACKUP WILL BE INSTALLED IN THE BASE MOUNTED TYPE S CABINET BY THE CONTRACTOR.

CONTACT PERSONS FOR DISTRICT #4 ARE AS FOLLOWS:

MS. ERIN KUHN
ASSISTANT DISTRICT ENGINEER-TRAFFIC
PHONE: (410)229-2381

MR. ANDRE FUTRELL
ASSISTANT DISTRICT ENGINEER-MAINTENANCE
PHONE: (410)229-2361

MR. MICHAEL PASQUARIELLO
UTILITY ENGINEER
PHONE: (410)229-2341

MR. DONALD SCHAEFER
ASSISTANT DISTRICT ENGINEER-CONSTRUCTION
PHONE: (410)229-2421

CONTACT PERSONS FOR OOTS ARE AS FOLLOWS:

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
DIVISION
PHONE: (410)787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF
TRAFFIC OPERATIONS
(410)787-7630

MR. ED RODENHIZER
CHIEF, SIGNAL OPERATIONS
(410)787-7650

MR. EUGENE BAILEY
CHIEF, SIGN OPERATIONS
(410)787-7676

UTILITY COMPANY

BGE
GAS & ELECTRIC NEW BUSINESS DEPT.
(410) 850-4620

VERIZON
NEW BUSINESS DEPT.
(800) 837-4966

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT 410-787-7630 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE, AND TELEPHONE NUMBER.

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
2. UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "MISS UTILITY" PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
3. THE CONTRACTOR SHALL VERIFY ALL EQUIPMENT LOCATIONS PRIOR TO INSTALLATION.
4. VIDEO DETECTION CAMERA LOCATION/ALIGNMENT SHALL BE COORDINATED WITH THE ENGINEER.
5. THE CONTRACTOR SHALL CAP AND ABANDON CONDUIT FEEDING SIGNAL EQUIPMENT THAT IS REMOVED.
6. FOR FINAL PAVEMENT MARKINGS REFER TO THE PAVEMENT MARKING PLANS, OTHER THAN THOSE DETAILED ON THE PLAN. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH SHA STANDARDS.
7. INSTALL HANDHOLE WITH LONG DIMENSION PERPENDICULAR TO TRAVEL WAY FOR INSTALLATION OF NON-INVASIVE MICROLOOP PROBES. EXTEND CONDUIT A MINIMUM OF 2 IN. AND A MAXIMUM OF 3 IN. INTO HANDHOLE.
8. ALL UNUSED CABLE SHALL BE REMOVED AND DISPOSED.

DIMENSIONS
NOT TO SCALE

EQUIPMENT LIST "A"

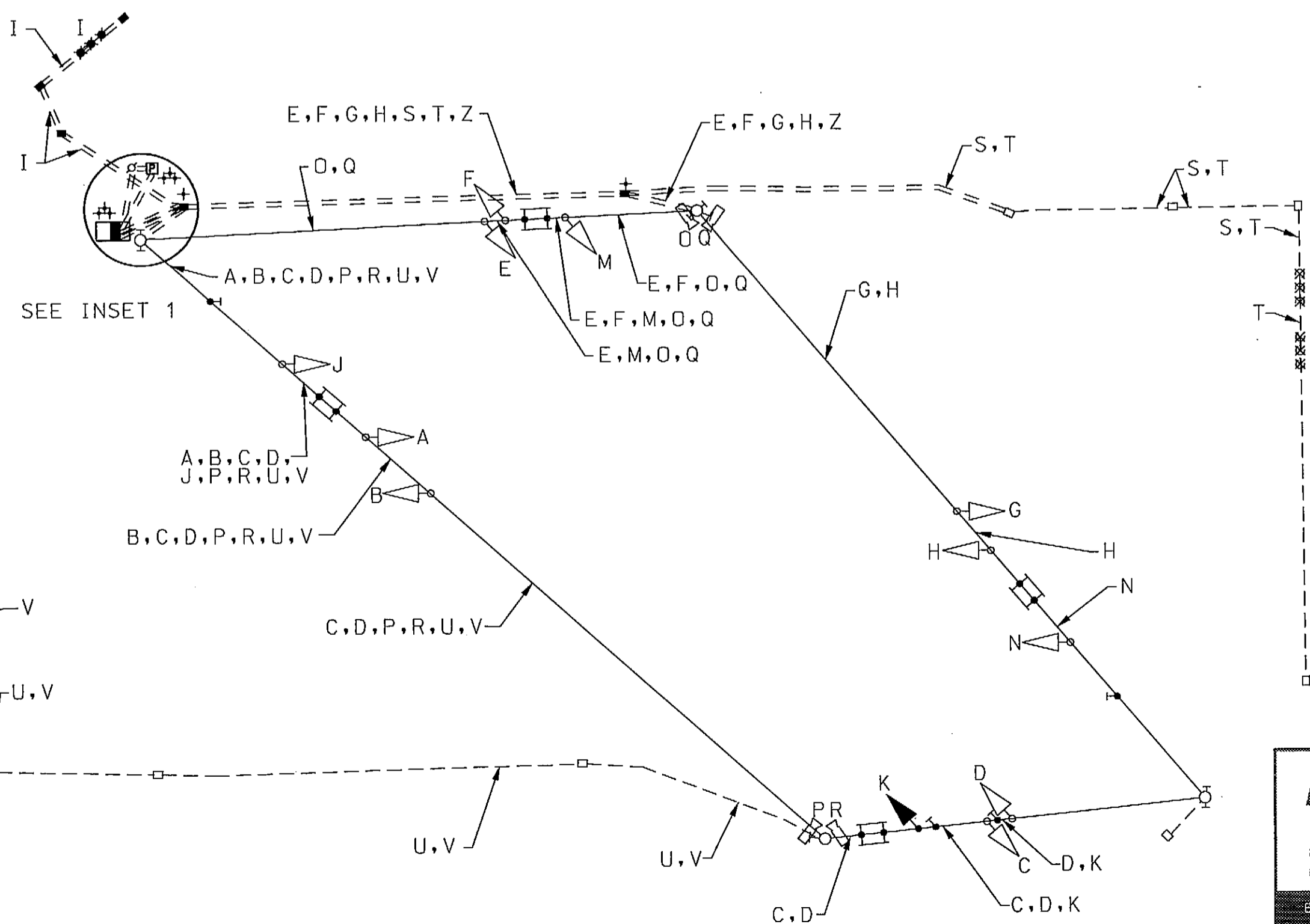
CATEGORY	DESCRIPTION
A. EQUIPMENT TO BE SUPPLIED BY THE SHA.	
900000	FOUR CHANNEL LOOP DETECTOR AMPLIFIER, RACK MOUNT
900000	EIGHT PHASE (FULLY ACTUATED) CONTROLLER
900000	CONTROLLER CABINET, SIZE S
900000	VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS
900000	SHEET ALUMINUM GROUND MOUNTED SIGN
900000	1 - M1-5(6) (30"x48") 1 - M1-5(6) (48"x72")
900000	SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN
900000	2 - M1-5(6) (24"x48") 1 - M1-5(6) MOD (24"x51")
900000	3 - M1-5(6) (36"x72")
900000	SHEET ALUMINUM SPAN MOUNTED SIGN
900000	2 - R3-5R (30"x36") 2 - R3-5L (30"x36")
900000	4 - D-3(1) (92"x20") 4 - D-3(1) (90"x20")

EQUIPMENT LIST "B"

CATEGORY	DESCRIPTION
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.	
203030	TEST PIT EXCAVATION
585625	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
800000	REMOVE AND DISPOSE OF EXISTING TRAFFIC SIGNAL EQUIPMENT
800000	REAIM VIDEO DETECTION CAMERA
800000	UPS BATTERY BACKUP SYSTEM
800000	DISCONNECT, PULL BACK & REROUTE CABLE
801004	CONCRETE FOR SIGNAL FOUNDATION
801106	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805115	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
805118	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
805125	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805140	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
807202	METERED SERVICE PEDESTAL
810601	NONINVASIVE DETECTOR, 500 FOOT LEAD IN CABLE
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813014	INSTALL GROUND MOUNTED SIGN
813015	INSTALL OVERHEAD SIGN
832017	CABLE - 1 CONDUCTOR, NO 4 AWG, TYPE USE, 600V
837001	FURNISH AND INSTALL GROUND ROD 3/4 IN. DIAMETER X FT. LENGTH
860284	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
871202	INSTALL CONTROLLER AND CABINET - BASE MOUNT

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME PROPERTY OF THE CONTRACTOR. CONTACT ED RODENHIZER AT 410-787-7650 TO COORDINATE.

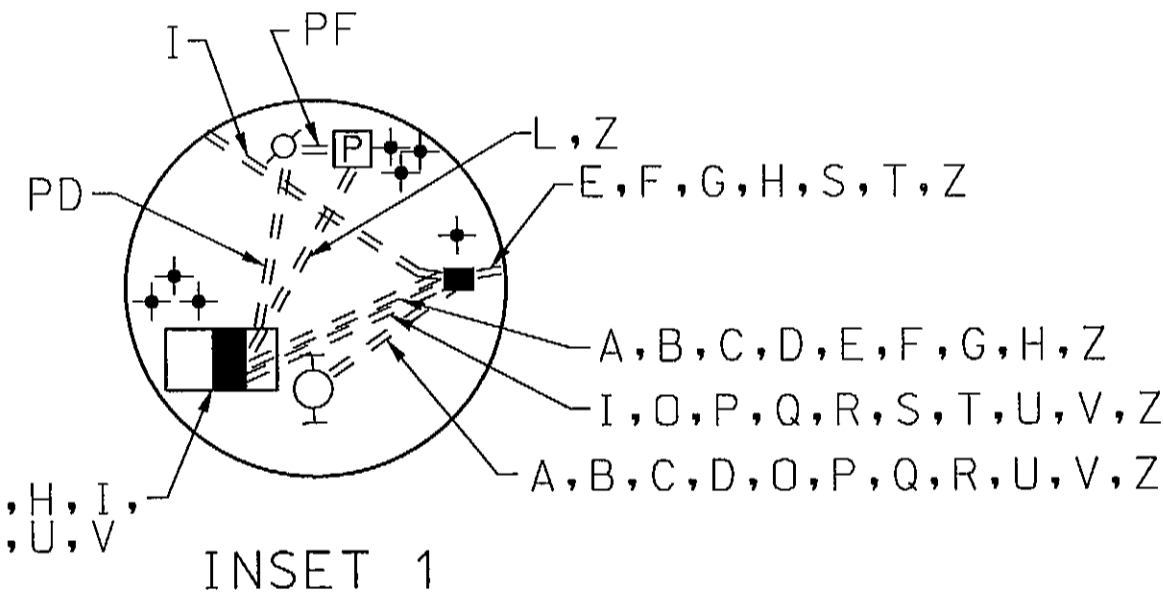


WIRING KEY

A,B,C,D,E	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
F,G,H	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
J,K	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
M,N	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
O,P,Q,R	VIDEO DETECTION CAMERA CABLE (DISCONNECT, PULL BACK & REROUTE CABLE)
S,T,U,V	MICRO-LOOP PROBE SET WITH 1000 FT. LEAD-IN (DISCONNECT, PULL BACK & REROUTE CABLE)
I	MICRO-LOOP PROBE SET WITH 500 FT. LEAD-IN
L	1-CONDUCTOR ELECTRICAL CABLE (NO. 4 AWG) 3 RUNS
PF	UNDERGROUND POWER SERVICE BY BGE
PD	UNDERGROUND PHONE DROP BY VERIZON
Z	STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
+	PROPOSED GROUND ROD

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PHASE CHART											
	1	2	3	4	5	6	7	8	9	10	11
PHASE 1 & 5	R	R	R	R	R	R	R	R	R	R	R
1 & 5 CHANGE	CHANGES TO PHASE 1 & 6, 2 & 5 OR 2 & 6										
PHASE 1 & 6	G	G	G	R	R	R	R	R	R	R	R
1 & 6 CHANGE	G	G	G	R	R	R	R	R	R	R	R
PHASE 2 & 5	R	R	R	G	G	G	R	R	R	R	R
2 & 5 CHANGE	R	R	R	G	G	G	R	R	R	R	R
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R
PHASE 3	R	R	R	R	R	R	G	G	G	R	R
3 CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R
PHASE 4	R	R	R	R	R	R	R	R	R	G	G
4 CHANGE	R	R	R	R	R	R	R	R	R	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R



SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
US 40 @ MD 7 / MD 159
ABERDEEN, MARYLAND

REVISIONS		GENERAL INFORMATION SHEET	
SCALE NONE DATE AUGUST 2011 CONTRACT NO. HA3485270		DESIGNED BY BJG COUNTY HARFORD COUNTY	
DRAWN BY BJG LOGMILE 12004010.71		CHECKED BY BLB TIMS NO. J-531	
FAP NO. TOD NO.		TS NO. 629D-61 DRAWING SP-2 OF 2 SHEET NO. 39 OF 45	

PLOTTED: Monday, August 15, 2011 AT 02:00 PM
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